

**ABSTRACT OF THE DISCLOSURE**

A method for treating a polymetallic sulfide ore containing gold and/or silver, and further containing base metals selected from the group consisting of iron, aluminum, chromium, titanium, copper, zinc, lead, nickel, 5 cobalt, mercury, tin, and mixtures thereof, is disclosed. The method comprises the steps of grinding the polymetallic sulfide ore to produce granules, oxidizing the granules to produce oxidized granules, and chloride leaching the granules using a brine solution including dissolved halogens, as well as chloride and bromide salts.